Adolescent Myocarditis After COVID-19 Vaccination Is Rare

Postmarketing safety monitoring data suggest that nonserious local and systemic reactions are common among adolescents who receive a SARS-CoV-2 mRNA vaccine, while reports of severe adverse events like myocarditis are rare.

Between December 2020 and mid-July of this year, nearly 9 million US adolescents aged 12 to 17 years received Pfizer-BioNTech’s COVID-19 vaccine, the only one approved for use among this age group. During that period, the CDC’s Vaccine Adverse Event Reporting System (VAERS) collected 9246 reports of postvaccination adverse events in this age group, or 1 per 1000 recipients. More than 90% of the reports were for nonserious symptoms, most commonly dizziness, fainting, nausea, headache, and fever. Among 863 serious adverse events, the most common conditions and findings were chest pain, increased troponin levels, and myocarditis. Myocarditis, which disproportionately affected males, was listed in 397 reports, representing 4.3% of all VAERS reports. Fourteen deaths were reported, but there was no pattern indicating that vaccination caused them. However, cause of death for 6 adolescents was unknown or pending, the authors noted.

Additionally, nearly 130,000 adolescents participated in a series of postvaccination CDC surveys. Participants received recurring text reminders to complete a web-based survey over 12 months. Half of them reported systemic reactions after the first dose, and about two-thirds reported them after the second. Most reactions occurred the first day after vaccination and the most frequently reported symptoms were injection site pain, fatigue, headache, and muscle pain. One-third of adolescents reported a fever in the week after the second dose, and about one-quarter reported they were unable to perform daily activities the day after their second shot.

The VAERS myocarditis reports are being followed up. Other case reports so far suggest the condition improves with time and supportive care.

Severe Tuberculosis Surged After Shelter-in-Place Lifted

Tuberculosis (TB) diagnoses in San Francisco dropped by more than half during the initial months of the COVID-19 shelter-in-place order, which may have delayed care and contributed to increased hospitalizations and deaths compared with pre-pandemic rates, according to a report in Emerging Infectious Diseases.

The city’s TB incidence was 4 times higher in 2019 than the national rate. Most of those affected weren’t born in the US but had lived in the country for more than 5 years. A previous study found that TB diagnoses dropped 60% during the first 4 months of the COVID-19 pandemic. The new report suggests that delayed diagnoses early in the pandemic led to worse patient outcomes.

The analysis compared San Francisco’s prepandemic data from January 1, 2019, through March 15, 2020, with data collected from March 16, 2020, through January 31, 2021, while the shelter-in-place order was in effect. An average of 73 patients per month were treated for TB before the pandemic compared with about 43 per month during the restrictions. Few diagnoses were made in the pandemic’s first months, but the numbers began to increase in July as patients were hospitalized for TB-related complications, according to the authors.

During the prepandemic period, 114 patients were diagnosed with TB and one-third of them were hospitalized. Five required intensive care and 4 died of TB-related causes. During the shelter-in-place order, 52 patients were diagnosed with TB and almost two-thirds were hospitalized. Twelve required intensive care and 7 died of TB-related causes.

“As vaccination rates increase and restrictions ease, continued vigilance and public messaging about the importance of early diagnosis of TB in high-risk populations remain critical,” the authors wrote. — Bridget M. Kuehn, MSJ

Note: Source references are available through embedded hyperlinks in the article text online.